

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Mitsuaki YAMAMOTO, et al.

SERIAL NO: 09/926,199

GAU: 1641

FILED: September 24, 2001

EXAMINER:

FOR: METHOD FOR QUANTITATING CHOLESTEROL



INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

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TC 280 MAIL ROOM

REFERENCES

- ☐ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

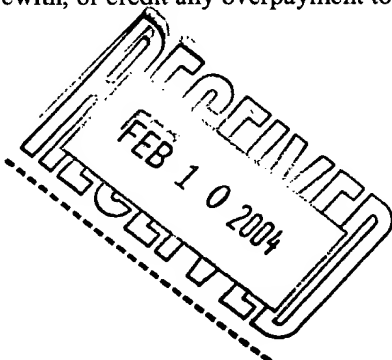
- ☒ Attached is a list of applicant's pending application(s) which may be related to the present application. A copy of the claims and drawings is attached.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.



Respectfully submitted,

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LIST OF RELATED CASES

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
213966US0 PCT*	09/926,199	09/24/01	YAMAMOTO, et al.
242302US0 CONT	10/653,424	09/03/03	NAKANISHI, et al.

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*Present Application; listed for faxed information
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CLAIMS

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1C 2800 MAIL ROOM

1 1. A method for the quantitation of cholesterol
2 in high-density lipoprotein, which comprises adding a
3 surfactant, which is selected from polyoxyethylene
4 alkylene phenyl ethers and polyoxyethylene alkylene
5 tribenzylphenyl ethers, and a cholesterol-quantitating
6 enzyme reagent to serum; and then measuring a reacted
7 quantity of said cholesterol in said high-density
8 lipoprotein in a time in which said cholesterol in said
9 high-density lipoprotein preferentially reacts with
10 said cholesterol-quantitating enzyme reagent.

1 2. A method for the quantitation of cholesterol
2 in high-density lipoprotein, which comprises adding a
3 surfactant selected from polyoxyethylene alkylene
4 phenyl ethers and polyoxyethylene alkylene tribenzyl-
5 phenyl ethers, a substance having effect to inhibit a
6 reaction between cholesterol in serum lipoproteins and
7 a cholesterol-quantitating enzyme reagent, and said
8 cholesterol-quantitating enzyme reagent to serum; and
9 then measuring a reacted quantity of said cholesterol
10 in said high-density lipoprotein in a time in which
11 said cholesterol in said high-density lipoprotein pref-
12 erentially reacts with said cholesterol-quantitating
13 enzyme reagent.

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PURPOSES ONLY

Related Pending Application
Related Case Serial No: 101653424
Related Case Filing Date: 9-30-03

1 3. A method according to claim 2, wherein said
2 substance having effect to inhibit said reaction be-
3 tween cholesterol in serum lipoproteins and said
4 cholesterol-quantitating enzyme reagent is a combina-
5 tion of a surfactant, which does not dissolve
6 lipoproteins, or a polyanion and a substance capable of
7 forming divalent metal ions.

1 4. A reagent or reagent kit for the quantitation
2 of cholesterol in high-density lipoprotein, comprising
3 the following ingredients (a) and (b):

4 (a) a surfactant selected from polyoxyethylene
5 alkylene phenyl ethers and polyoxyethylene
6 alkylene tribenzylphenyl ethers; and

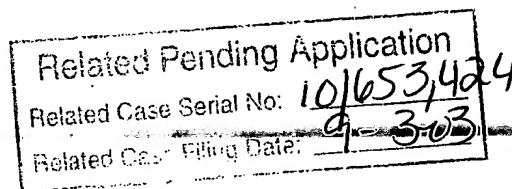
7 (b) a cholesterol-quantitating enzyme reagent.

1 5. A reagent or reagent kit for the quantitation
2 of cholesterol in high-density lipoprotein, comprising
3 the following ingredients (a), (b) and (c):

4 (a) a surfactant selected from polyoxyethylene
5 alkylene phenyl ethers and polyoxyethylene
6 alkylene tribenzylphenyl ethers;

7 (b) a substance having effect to inhibit a reac-
8 tion between cholesterol in serum
9 lipoproteins and a cholesterol-quantitating
10 enzyme reagent; and

11 (c) said cholesterol-quantitating enzyme reagent.



ABSTRACT

A method for quantitating HDL cholesterol, comprising adding to serum a surfactant selected from among polyethylene alkylene phenyl ethers and polyoxyethylene alkylene tribenzylphenyl ethers and an enzyme reagent for assaying cholesterol, optionally together with a substance capable of inhibiting the reaction of cholesterol in serum lipoproteins with the above enzyme reagent, and determining the amount of the cholesterol thus reacted within a period of time where cholesterol in HDL, among lipoproteins, preferentially reacts with the above enzyme reagent.

By using this method, cholesterol in HDL can be conveniently and efficiently quantitated without resort to any pretreatment such as centrifugation. Thus, it is applicable to various automatic analyzers.

